

**Notice of Allowability**

Application No.

10/806,501

Applicant(s)

CORBAN, J. ERIC

Examiner

Art Unit

Ronald D Hartman Jr.

2121

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 12/23/2004.
2. ☒ The allowed claim(s) is/are 1-15 and 20-25 (renumbered by the Examiner as 1-21).
3. ☒ The drawings filed on 22 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

1. Claims 1-15 and 20-25 are presented for further examination.

#### ***Priority***

2. Once again, Priority is acknowledged to parent application No. 08/510,055 which was filed in 8/1/1995 and which has since matured into U.S. Patent No. 6,092,919, as well as to 09/585,105 which was filed in 5/31/2000 and which has since matured into U.S. Patent No. 6,757,570. Therefore the effective priority date, with respect to applicable prior art, of the instant invention appears to be **8/1/1995**.

#### ***Allowable Subject Matter***

3. Claims 1-15 and 20-25 are allowed.

As per claims 1-15 and 20-25, specifically independent claims 1 and 14, the prior art of record fails to teach a computer system for controlling a non-linear physical process, the system comprising a linear controller and a neural network, wherein connection weights of the neural network are adjusted on-line, that is, as the neural network and the linear controller are used to control the process, wherein a modified control signal which is outputted from the neural network is combined with the output from the linear controller in order to control the non-linear physical process, in combination with the other claimed features and or limitations as claimed by the claimed invention.

#### ***Response to Arguments***

4. Applicant's arguments; see Remarks/Arguments, filed 12/23/2004, with respect to claims 1-15 have been fully considered and are persuasive. Therefore, the rejections applied using Mathur, U.S. Patent No. 5,625,552, of claims 1-15 has been withdrawn.

Therefore, since the rejection of Mathur has been withdrawn, all rejections formed using Mathur as a basis, specifically the rejections made using Gold et al., U.S. Patent 5,213,282, have been withdrawn as well.

Specifically, the applicant has amended claims 1 and 14 to include features not present in the Mathur Patent. Specifically, the addition of a feature which requires the training of the neural network to be performed on-line and a feature wherein the output from the linear controller is combined with the output of the neural network in order for the non-linear process to be controlled. These features are not found in Mathur and are not rendered obvious by any references located by the Examiner of record.

### **Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is (571) 272 - 3684. The examiner can normally be reached on Mon. - Fri., 11:30 am - 8:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached at (571) 272 - 3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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